

What is Claimed:

1. An interface apparatus for a structured document, for performing processing of lexical analysis and processing of notifying an application program of a processing requester of a series of events relating to the structured document in order with respect to the structured document requested to be processed from the application program, the apparatus comprising:

store means for associating the series of events notified to the application program as event set information with the structured document to store the information into a cache; and

first notification means for notifying the application program as the processing requester of the series of events relating to the structured document in order based on the event set information of the cache, when there is the event set information in the cache with respect to the structured document as a processing object.

2. The interface apparatus for the structured document according to claim 1, further comprising:

second notification means for reading the structured document whose event set information is not in the cache to perform the processing of the lexical analysis and the processing of notifying the application program as the processing requester of the series of events relating to the structured document in order,

wherein the store means associates the series of events notified to the application program by the second notification means as the event set information with the structured document to store the information into the cache.

3. An interface apparatus for a structured document, comprising:

first processing means for reading the structured document as a processing request object to perform the processing of the lexical analysis; the processing of notifying the application program as the processing requester of the series of events relating to the structured document in order, and the processing of associating the notified series of events as the event set information with the structured document to store the information into the cache;

second processing means for reading the event set information of the cache with respect to the structured document as the processing request object to notify the application program as the processing requester of the series of events relating to the event set information in order; and

control means for checking whether or not the event set information of the structured document as the processing object is in the cache to delegate the processing concerning the structured document as the processing object to the first processing means, when there is not the event set information in the cache, or to delegate the processing concerning the structured document as the processing object to the second processing means, when there is the event set information in the cache.

4. The interface apparatus for the structured

document according to claim 3, wherein the control means judges presence/absence of the event set information of the structured document as the processing object in the cache, and judges that there is not the event set information in the cache with respect to the structured document as the processing object, when the event set information relating to a structured document having the same file name as that of the structured document as the processing object exists in the cache but when the event set information relates to a structured document before update of the existing structured document.

5. The interface apparatus for the structured document according to claim 4, wherein the control means is a parser notified from the application program of the processing requester of the structured document of the processing request object by URI.

6. The interface apparatus for the structured document according to claim 4, wherein the first and second processing means are mounted in corresponding parsers, whereas the control means is mounted in the application program as the processing requester.

7. A processing method for a structured document, for performing processing of lexical analysis and processing of notifying an application program as a processing requester of a series of events relating to the structured document in order with respect to the structured document requested to be processed from the application program, the method comprising:

a first step of associating the series of events notified to the application program as event set information with the structured document to store the information into a cache; and

a second step of notifying the application program as the processing requester of the series of events relating to the structured document in order based on the event set information of the cache, when there is the event set information in the cache with respect to the structured document as a processing object.

8. The processing method for the structured document according to claim 7, further comprising:

a third step of reading the structured document whose event set information is not in the cache to perform the processing of the lexical analysis and the processing of notifying the application program as the processing requester of the series of events relating to the structured document in order, and

a fourth step of associating the series of events notified to the application program as the event set information with the structured document to store the information into the cache in the third step.

9. A processing method for a structured document, comprising:

a step for standard processing of reading the structured document as a processing request object to perform processing of lexical analysis, processing of notifying an application program as a processing requester of a series of events relating to the structured document in order, and

processing of associating the notified series of events as event set information with the structured document to store the information into a cache;

a step for reduction processing of reading the event set information of the cache with respect to the structured document as the processing request object to notify the application program as the processing requester of the series of events relating to the event set information in order; and

a control step of checking whether or not the event set information of the structured document as the processing object is in the cache, and controlling the step for the standard processing so as to be executed, when there is not the event set information in the cache, or controlling the step for the reduction processing so as to be executed, when there is the event set information in the cache.

10. The processing method for the structured document according to claim 9, wherein the control step comprises: judging that there is not the event set information in the cache with respect to the structured document as the processing object, when it is judging whether or not there is the event set information of the structured document as the processing object in the cache and when the event set information relating to a structured document having the same file name as that of the structured document as the processing object exists in the cache but when the event set information relates to a structured document before update of the existing structured document.

11. The processing method for the structured document according to claim 10, wherein the control step is

performed in a parser notified from the application program of the processing requester for the structured document of the processing request object by URI.

12. The processing method for the structured document according to claim 10, wherein the first and second processing steps are performed in corresponding parsers, whereas the control step is performed in the application program issuing the processing request with respect to the structured document.

13. A processing program product for a structured document, for performing processing of lexical analysis and processing of notifying an application program as a processing requester of a series of events relating to the structured document in order with respect to the structured document which has been requested to be processed from the application program, the program allowing a computer to execute:

a first step of associating the series of events notified to the application program as event set information with the structured document to store the information into a cache; and

a second step of notifying the application program as the processing requester of the series of events relating to the structured document in order based on the event set information of the cache, when there is the event set information in the cache with respect to the structured document as a processing object.

14. The processing program product for the

structured document according to claim 13, further allowing the computer to execute:

a third step of reading the structured document whose event set information is not in the cache to perform the processing of the lexical analysis and the processing of notifying the application program as the processing requester of the series of events relating to the structured document in order; and

a fourth step of associating the series of events notified to the application program as the event set information with the structured document to store the information into the cache in the third step.

15. A processing program product for a structured document, for allowing a computer to execute:

a step for standard processing of reading a structured document of a processing request object to perform processing of lexical analysis, processing of notifying an application program as a processing requester of a series of events relating to the structured document in order, and processing of associating the notified series of events as event set information with the structured document to store the information into a cache;

a step for reduction processing of reading the event set information of the cache with respect to the structured document as the processing request object to notify the application program as the processing requester of the series of events relating to the event set information in order; and

a control step of checking whether or not the event set information on the structured document as the processing object is in the cache, and controlling the step for the

standard processing so as to be executed, when there is not the event set information in the cache, or controlling the step for the reduction processing so as to be executed, when there is the event set information in the cache.

16. The processing program product for the structured document according to claim 15, wherein the control step allows the computer to execute a step of judging that there is not the event set information in the cache with respect to the structured document as the processing object, when it is judged whether or not there is the event set information on the structured document as the processing object in the cache and when the event set information relating to a structured document having the same file name as that of the structured document as the processing object exists in the cache but when the event set information relates to a structured document before update of the existing structured document.

17. The processing program product for the structured document according to claim 16, allowing the computer to execute the control step in a parser notified from the application program as the processing requester for the structured document as the processing request object by URI.

18. The processing program product for the structured document according to claim 16, allowing the computer to execute the first and second processing steps in corresponding parsers, and the control step in the application program issuing the processing request with



respect to the structured document.